



**- CHLCare -
An Electronic Health Record System
for the Safety Net**

2004 HCAP All Grantee Meeting

January 21, 2004

**Primary Care Coalition
of Montgomery County
Tom Lewis, MD
Guy Fisher**



Agenda

- CHLCare Overview
- Demo of CHLCare
- Development Plan
- Lessons Learned



CHLCare: The Need...

- Approx **80,000 uninsured** in Montgomery County
- **Multiple, local non-profit clinics** comprise safety net
- Funders of non-profit clinics looking for **accountability data**
- Clinics are **under-resourced**
- Current clinic **systems vary** from sophisticated to non-existent
- Clinics have **little or no technical support**
- Often difficult to **analyze data** for medical trends, outcomes, quality, costs, periodic reports
- Patients seek care at multiple clinics – can lead to **duplication and poor quality**

The Solution... County-wide Unified EHR System



CHLCare: The Fundamentals...

- ***Patient-centric*** – single view of a patient's records across multiple clinics
- ***HIPAA compliant*** – facilitate privacy
- ***Encounter-based*** – visit focused
- ***Thin/Broad/Extensible***
- ***Low cost*** – upfront costs through HRSA grant with minimal ongoing costs
 - ***Open Source***
 - ***Web-based***
- ***Facilitate Conversions***
- ***Easy to Use***

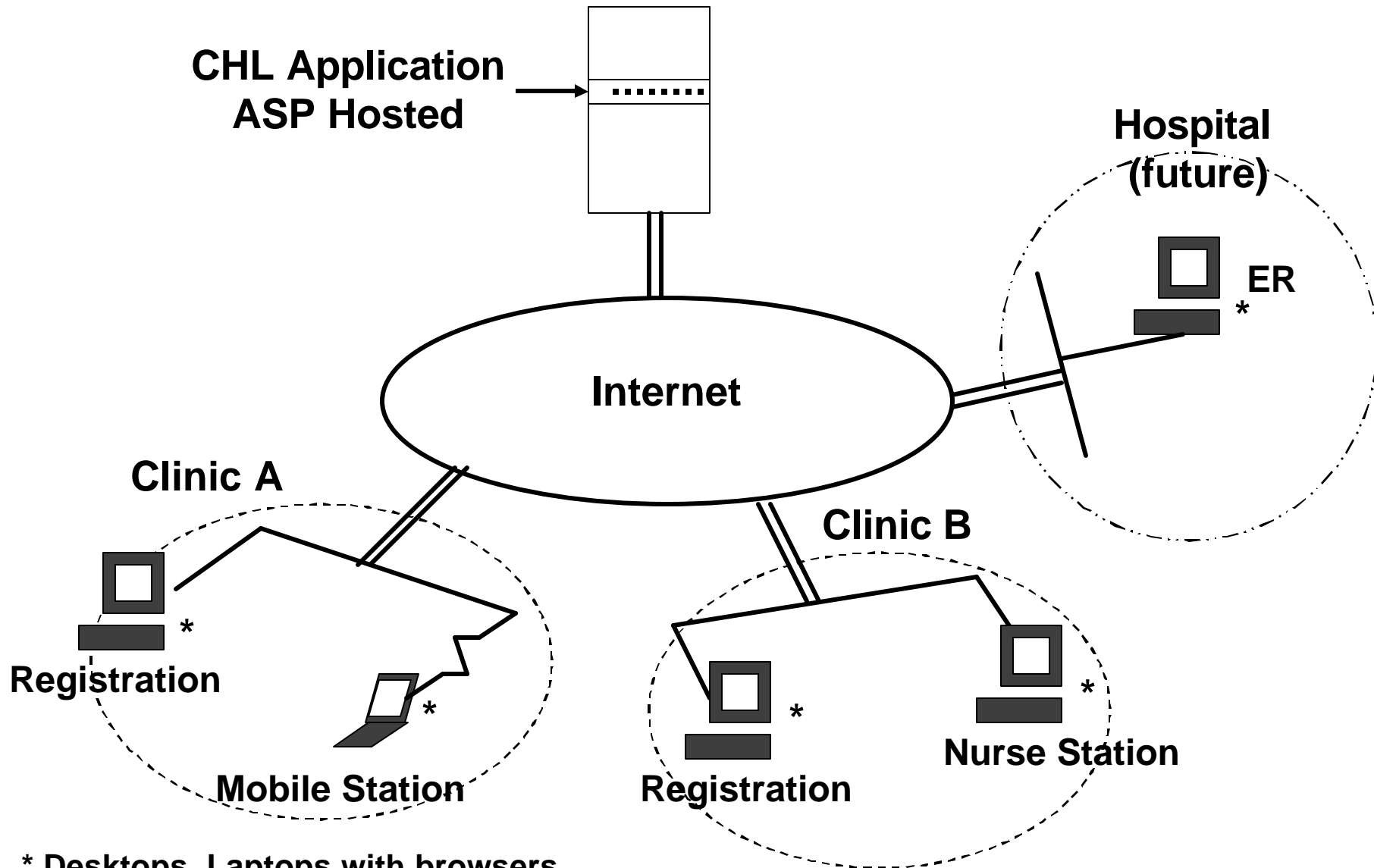
- **Nothing commercially available – no surprise!**
- **We opted to build (CAP/HCAP) and facilitate re-use**



CHLCare: Current status...

- **Operating Legal Agreements in place**
- **Deployment process in place**
 - Workflows
 - Data Conversion
 - User documentation/training
 - Production, Training, Staging, Development Instances
- **CHLCare v1.2.01 – Live!**
 - 2 Spanish Catholic Center Clinic locations now LIVE
 - 3 months of un-interrupted service
 - Next 3 clinics being implemented
 - 3 more in early planning
 - New release with Appointment Module in testing

2 Sites – Over 22,000 Patient records now in Production





Demo of CHLCare

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Demo Demo @ Spanish Catholic Center -- Langley Park Adults | [LOGOUT](#)

- ☐ Appointments
- ☐ Select Patient
- ☐ Print Forms
- ☐ Reports
- ☐ Maintenance

Find a patient to work with or [add a new patient](#)

FIRST NAME: LAST NAME: ☐ last name "sounds like"

CLINIC: SSN: CHL ID:

Search Results 6 Matches - [search again keep criteria](#) | [new search](#)

Visit	Patient	Delete	Appt	Name	Address	City	SSN	Date Of Birth	Primary Clinic	Location		
1)	V	E	n/a	A	Chaplin, charlie	3300 Briggs Chaney	Silver Spring	123-23-1234	January 1, 1967	Mobile Medical	Bethesda	H
2)	V	E	n/a	A	chaplin, suzie					Spanish Catholic Center	Rockville	H
3)	V	E	n/a	A	Chaplin, Harold	48 Quick Lane	Silver Spring	111-22-3333	October 31, 1977	Spanish Catholic Center	Langley Park	H
4)	V	E	n/a	A	Chaplin, derick	8282 Silent Street	Silver Spring			Community Clinic	Silver Spring	H
5)	V	E	n/a	A	Chaplins, Linda F	182 Horror Ave	FreddyKrugerVille	333-32-1111		Spanish Catholic Center	Langley Park	H
6)	V	E	n/a	A	Chaplins, Linda F	182 Horror Ave	FreddyKrugerVille	333-32-1111		Spanish Catholic Center	Langley Park	H

* No CHL Authorization



a Q-Industries Application

CHL version 1.2.01



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Demo Demo @ Spanish Catholic Center -- Langley Park Adults | [LOGOUT](#)

Patient: charlie Chaplin (DOB: Jan 01 1967)

Primary Clinic: Mobile Medical Care -- Bethesda

Check Allergies

- ☐ Patient Info
- ☐ Visits
- ☐ Program Notes
- ☐ Clinical Summary

- ☐ Appointments
- ☐ Select Patient
- ☐ Print Forms
- ☐ Reports
- ☐ Maintenance

Patient Basics

Clear Changes

Save Changes

Save & Next

>>

Name (First,Middle,Last) Mr charlie Chaplin

Shelter Type

Address 3300 Briggs Chaney

City, State, Zip Silver Spring MD 208320

County Montgomery

Clinic Mobile Medical Care -- Bethesda

Clinic MRN 337s23

CHI ID 10001

CHL Auth Signed 2003-03-14

Authorizer: Q Administrator

[Click here to update chl authorization](#)SS Number 123 23 1234 ☐ Not Available

Sex

Date Of Birth January 01 1967

Marital Status Married

Household Status Head of Household

For Pediatrics

Parent's Name(F,M,L)

Emergency Contact Info

Name (First Middle Last)

Relationship CHILD(BIOLOGICAL)

Phone

Other Contact Info

Home Phone

Cell Phone

Work Phone

Alternate Phone

Email

Ethnicity Not Hispanic or Latino

Race Black or African American


Citizenship Status Citizen

Preferred Language

English Proficiency Proficient

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Patient: charlie Chaplin (DOB: Jan 01 1967)
Primary Clinic: Mobile Medical Care -- Bethesda
Check Allergies

☐ Patient Info
☐ Visits
☐ Program No
☐ Clinical Sum

Patient Basics
More Basics
Insurance
Medical History
Household Info
Finance
Special Needs

Allergies
Medications taken
Immunizations
Previous Illnesses
Operations/Hospitalizations/Injuries
Family History
Social History

☐ Appointments
☐ Select Patient
☐ Print Forms
☐ Reports
☐ Maintenance

Patient Basics

[Clear Changes](#) [Save Changes](#) [Save & Next](#) [>>](#)

Name (First,Middle,Last)	Mr charlie Chaplin
Shelter Type	
Address	3300 Briggs Chaney
City, State, Zip	Silver Spring MD 208320
County	Montgomery
Clinic	Mobile Medical Care -- Bethesda
Clinic MRN	337s23
ChI ID	10001
CHL Auth Signed	2003-03-14
Authorizer: Q Administrator Click here to update chl authorization	
SS Number	123 23 1234 <input type="checkbox"/> Not Available
Sex	
Date Of Birth	January 01 1967
Marital Status	Married
Household Status	Head of Household
For Pediatrics	
Parent's Name(F,M,L)	

Emergency Contact Info

Name (First Middle Last)

Relationship CHILD(BIOLOGICAL)

Phone

Other Contact Info

Home Phone

Cell Phone

Work Phone

Alternate Phone

Email

Ethnicity Not Hispanic or Latino

Race Black or African American

Citizenship Status Citizen

Preferred Language

English Proficiency Proficient

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Patient: charlie Chaplin (DOB: Jan 01 1967)
Primary Clinic: Mobile Medical Care -- Bethesda
Check Allergies

- ☐ Patient Info
- ☒ Visits
- ☐ Program Notes
- ☐ Clinical Summary

- ☐ Appointments
- ☐ Select Patient
- ☐ Print Forms
- ☐ Reports
- ☐ Maintenance

Visits

Visit History

Date	Reason	Clinic
June 16 2005		Community Clinic -- Gaithersburg
January 06 2004		Spanish Catholic Center -- Langley Park Adults
November 15 2003		Community Clinic -- Gaithersburg
November 15 2003		Community Clinic -- Gaithersburg

Add New Visit:

Date: January 13 2004

Clinics: Spanish Catholic Center -- Langley Park Adults

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Patient: charlie Chaplin (DOB: Jan 01 1967)
Primary Clinic: Mobile Medical Care -- Bethesda

Visit Date: February 13 2003
Check Allergies

- ☐ Patient Info
- ☒ Visits
- ☐ Program Notes
- ☐ Clinical Summary

- ☐ Appointments
- ☐ Select Patient
- ☐ Print Forms
- ☐ Reports
- ☐ Maintenance

Visit Basics

Visit Date February 13, 2003

Visit Type: walkin

Clinic: [dropdown]

Providers: [dropdown]

Registrar: [dropdown]

Read Only Access



Reason: Diabetes

Last Visit: January 17 2003

No Show: Show

Follow Up

Follow Up Date: August 09 2007

Follow up Type/Comment

Nutrition Counselling

Read Only Access



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Demo Demo @

Patient: charlie Chaplin (DOB: Jan 01 1967)
Primary Clinic: Mobile Medical Care -- Bethesda

Visit Date: January 06 2004
Check Allergies

☐ Patient Info
☒ Visits
☐ Program No
☐ Clinical Sum

[Visit Basics](#)
[Diagnoses](#)
[Procedures](#)
[Physical Exams](#)
[Medication Info](#)
[Services Provided](#)
[Lab Tests](#)
[Referral](#)
[Notes](#)

angle Park Adults | [LOGOUT](#)

☐ Appointments
☐ Select Patient
☐ Print Forms
☐ Reports
☐ Maintenance

Diagnoses

<< Clear Changes Save Changes Save & Next >>

Problem List - [Click here for more ICD9 options](#)

Abdmnal Pain Unspcf Site	789.00	Cough	788.2	Oth Abdomen/pelvis Symp*	789.
Abdominal Pain*	789.0	Depressive Disorder Nec	311.	Oth Urinary Tract Disor*	599.
Ac Bronchitis/bronchiol*	466.	Dermatitis Nos	692.9	Other Atopic Dermatitis	691.8
Ac Laryngitis W/o Obst	464.00	Diabetes Mellitus Uncomp*	250.0	Other Deficiency Anemia*	281.
Ac Laryngitis/tracheitis*	464.	Diabetes Mellitus*	250.	Otitis Media Nos	382.9
Acute Bronchitis	466.0	Disorders Of Conjunctiva*	372.	Painful Respiration	786.52
Acute Conjunctivitis Nos	372.00	Dmi Wo Cmp Nt St Unctrl	250.01	Palpitations	785.1
Acute Conjunctivitis*	372.0	Dmi Wo Cmp Unctrl	250.03	Pernicious Anemia	281.0
Acute Gc Infect Lower Gu	098.0	Dmii Wo Cmp Nt St Unctr	250.00	Petit Mal Status	345.2
Acute Laryngitis*	464.0	Dmii Wo Cmp Unctrl	250.02	Pneumonia, Organism Nos	486.
Acute Nasopharyngitis	460.	Esophageal Reflux	530.81	Precordial Pain	786.51
Acute Pharyngitis	462.	Ext Ast W/o Stat Ast Nos	493.00	Reiter's Disease	099.3
Acute Reaction To Stress*	308.	Extrinsic Asthma*	493.0	Rhinitis Due To Pollen	477.0
Acute Sinusitis Nos	461.9	Fem Genital Symptoms Nos	625.9	Sprain Lumbosacral	846.0
Acute Tonsillitis	463.	Fever	780.6	Sprain Nos	848.9
Acute Uri Nos	465.9	Flu W Resp Manifest Nec	487.1	Sprain Of Ankle & Foot*	845.
Allergic Rhinitis Nos	477.9	Folate-deficiency Anemia	281.2	Sprain Of Ankle Nos	845.00
Allergic Rhinitis*	477.	Gen Cnv Epil W Intr Epil	345.11	Sprain Of Ankle*	845.0
Allergy, Unspecified	995.3	Gonococcal Infections*	098.	Sprain Of Foot Nos	845.10
Angina Pectoris Nec/nos	413.9	Headache	784.0	Sprain Of Foot*	845.1
Arthropathy Nos*	716.9	Herpes Zoster Nos	053.9	Sprain Of Knee & Leg Nos	844.9
Arthropathy Nos-unspec	716.90	Hypothyroidism Nos	244.9	Sprain Sacroiliac Region*	846.
Asthma*	493.	Ill-defined Intest Inf*	009.	Strep Sore Throat	034.0
Badkache Nos	724.5	Impacted Cerumen	380.4	Strep Throat/scarlet Fev*	034.
		Infectious Enteritis Nos	009.0	Stress React, Emotional	308.0
		Int Asthma W Status Asth	493.11	Symptoms Invol Head/neck*	784.
		Iron Def Anemia Dietary	280.1	Thyrotax Nos No Crisis	242.90
		Iron Defic Anemia Nos	280.9	Thyrotoxicosis Nos*	242.9
		Iron Deficiency Anemias*	280.	Thyrotoxicosis*	242.
		Lump Or Mass In Breast	611.72	Tox Dif Goiter No Crisis	242.00

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Demo Demo @

Patient: charlie Chaplin (DOB: Jan 01 1967)
Primary Clinic: Mobile Medical Care -- Bethesda

Visit Date: January 06 2004
Check Allergies

☐ Patient Info☒ Visits☐ Program No☐ Clinical Sum

Visit Basics

Diagnoses

Procedures

Physical Exams

Medication Info

Services Provided

Lab Tests

Referral

Notes

Vital Signs

General Appearance

HEENT

Neck/Thyroid

Heart

Chest/Lungs

Abdomen

GU

Back

MS/Extremities

Neuro

Skin

☐ Appointments☐ Select Patient☐ Print Forms☐ Reports☐ Maintenance

Physical Exam -- Vital Signs

<<

Clear Changes

Save Changes

Save

Body Temp °F °CResp Pulse Glucose Blood Pres Heights ft. in.Weight lbs.

<<

Clear Changes

Save Changes

Save & Next

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Patient: charlie Chaplin (DOB: Jan 01 1967)
Primary Clinic: Mobile Medical Care -- Bethesda
Check Allergies

- ☐ Patient Info
- ☐ Visits
- ☐ Program Notes
- ☐ Clinical Summary

- ☐ Appointments
- ☐ Select Patient
- ☐ Print Forms
- ☐ Reports
- ☐ Maintenance


Patient Appointments


Patient Data	Appointment Specifics
Find Different Patient Add New Patient Edit This Patient	instructions Check Availability
Name: charlie Chaplin	21 January 2004
Address: 3300 Briggs Chaney	Clinic Location: Spanish Catholic Center -- Langley Park Adults (SCLP-A)
City State Zip: Silver Spring MD 208320	Type of Appointment: OBGYN Exam
CHL MRN: 10001	Provider: Dr Kidds
Date of Birth: 1 January 1967	Length of Appointment: 30
Home Phone:	Reason:
Work Phone:	Notes:
Cell Phone:	
Clinic: Mobile Medical Care -- Bethesda (MMBA)	
Primary Language:	
English Proficiency: Proficient	

Outstanding Appointments

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Google 

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Patient: charlie Chaplin (DOB: Jan 1, 2004)
 Primary Clinic: Mobile Medical Care -- E
 Check Allergies

Patient Data

Find Different Patient

Add New Patient

Name charlie Chaplin
 Address 3300 Briggs Cha
 City State Zip Silver Spring
 CHL MRN 10001
 Date of Birth 1 January
 Home Phone
 Work Phone
 Cell Phone
 Clinic Mobile Medical
 Primary Language
 English Proficiency Proficient

Outstanding Appointments

Calendar - Microsoft Internet Explorer

Patient Chaplin, charlie 10001
 Clinic SCLP-A
 Date 2004-01-21 8:00
 Length 30 minutes
 Provider Dr Kidds

Save Appointment

<<< JAN 04 >>>						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

	Dr Older	Margo Edmunds	Dr Kidds	
8:00			available	
9:00				
10:00				
11:00				
12:00				
13:00				

RfaWQ9MQ%3D%3D

Go



- ☐ Appointments
- ☐ Select Patient
- ☐ Print Forms
- ☐ Reports
- ☐ Maintenance

instructions

2004

-- Langley Park Adults (SCLP-A)

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Patient: charlie Chaplin (DOB: Jan 01 1967)

Primary Clinic: Mobile Medical Care -- Bethesda

Check Allergies

- ☐ Patient Info
☐ Visits
☐ Program Notes
☒ Clinical Summary

- ☐ Appointments
☐ Select Patient
☐ Print Forms
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☐ Maintenance

Diagnosis/Problem List

Visit Date	Problem	Status
January 17 2003	- ABDOMINAL PAIN UNSPECIFIED SITE (789.00)	open
February 13 2003	- DIABETES MELLITUS* (250.)	open
May 27 2003	- FEVER (780.6)	open
September 03 2003	- ALLERGIC RHINITIS* (477.)	open

Visit History

Date	Reason	Clinic
June 16 2005		Community Clinic -- Gaithersburg
January 06 2004		Spanish Catholic Center -- Langley Park Adults
November 15 2003		Community Clinic -- Gaithersburg
November 10 2003		Community Clinic -- Gaithersburg
November 10 2003		Community Clinic -- Gaithersburg
November 10 2003		Community Clinic -- Gaithersburg
November 10 2003		Community Clinic -- Gaithersburg
November 10 2003		Community Clinic -- Gaithersburg
November 10 2003		Community Clinic -- Gaithersburg
November 10 2003	zxcfv	Community Clinic -- Gaithersburg

Allergies

Allergy	Comment
asprin	breaks into rash
spring grass	

Immunizations

Name	Status	Date
tetnus		04 02 2002

Recent Medications

Date	Name
December 02 2003	Alegria

Recent Lab Results

No records returned.

Special Needs

Comments
Requires ride to clinic; call volunteer list



Accessing CHLCare's Demo website

CHLCare is accessed via the Internet so first, you'll need to have a PC with a Microsoft Internet Explorer browser and with access to the Internet. CHLCare is a web-based application designed to work best with broadband Internet access, but you can certainly use dialup access, particularly for demonstration purposes.

Open up the Internet Explorer browser and type/paste in the following address into the address bar at the top:
<https://www.community-healthlink.org/training/> and hit the enter key.

The browser will return a log-on screen with three fields. First, select "Spanish Catholic Center -- Langley Park Adults" from the Clinic ID field, then type in "demo" in the User Name field, then type in "demo" as the password, and hit the enter key.

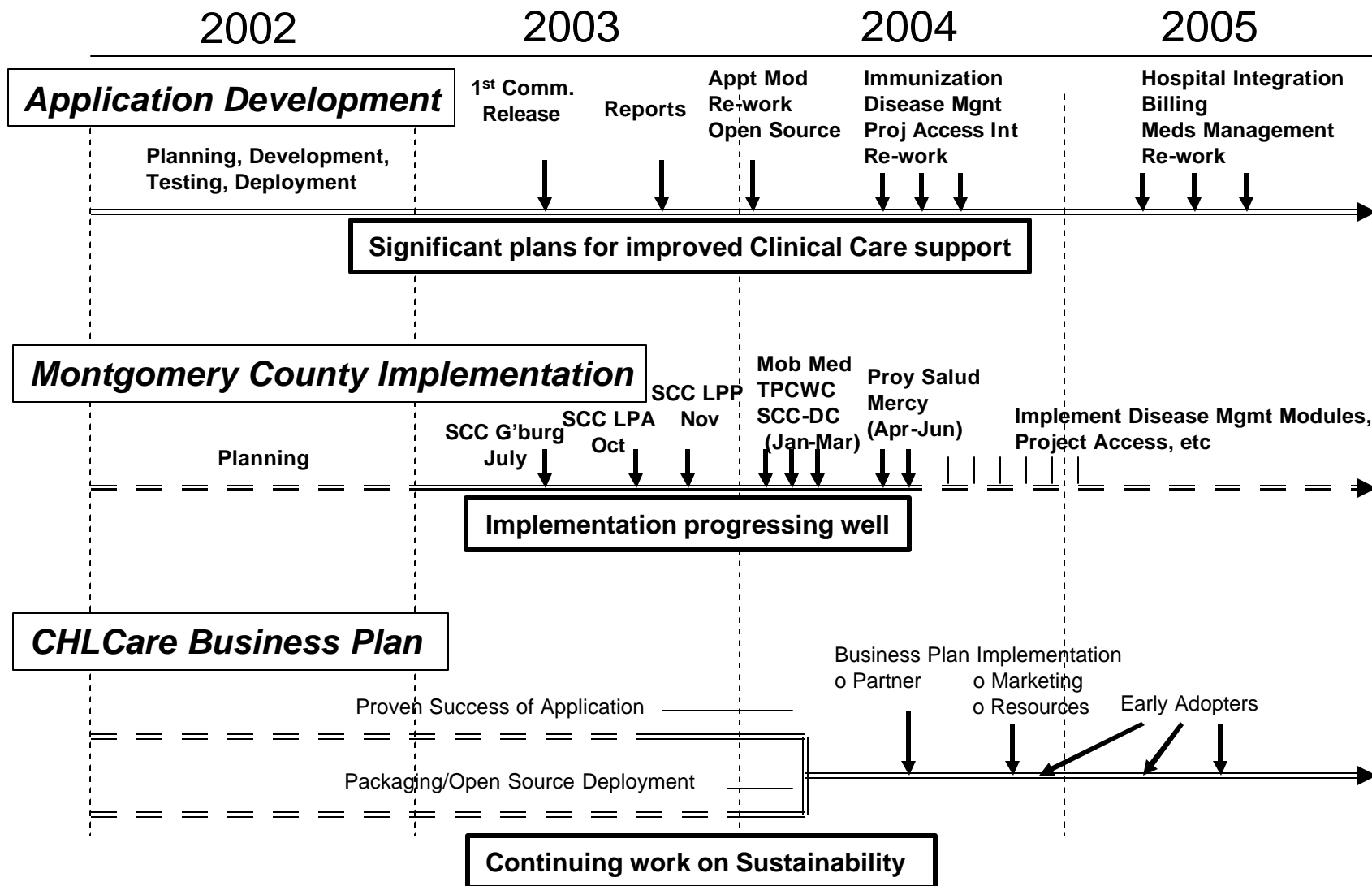
Once you log on you will be presented with a screen for you to find an existing patient (best bet here is not to fill in any data, but instead just click on the "Find" button -- this will give you a listing of all of the existing fictitious patients) and then click on the "E" on the left side next to a patient to pull up their records. You'll first see the patient's Basic information; there are navigation labels (such as "Visits" and "Clinical Summary") on the top section of the screen to help you navigate through the rest of the system.

Our Demonstration/Training service, which is the service you will be accessing, is there for you, and a number of other folks, to try things out. You can do whatever you want -- the only restriction is that you not use real patient data. You can add (fictitious) patients, add visits to patients, change data, whatever you want. The more you do the better!

If you have questions, or have problems logging on, please call or email Guy Fisher:
guy_fisher@primarycarecoalition.org
301 628 –3423



CHLCare Timelines





CHLCare: Lessons Re-enforced/Learned

- Healthcare Informatics remains not for the faint of heart
- Mapping the Workflow of each clinic is critical to ensure smooth transition and tune the solution
- Conversion of existing clinical data is much harder, takes much longer than you might think!
- Set expectations carefully – MIS is not *the* answer, just a part of it
- Start with the basics and build, rather than attempting the ultimate all-at-once
- Take the estimates and double them!

Our goal – facilitate re-use:

- **HRSA forums to share ideas**
- **SourceForge.net to share CHLCare software**